28. The method of claim 25, wherein the two-dimensional bar code structure contains at least one error correction codeword and the row indicator codewords contain information regarding the number of rows in the two-dimensional bar code structure, the number of codewords in each row, and the number of error correction codewords, and wherein the method further comprises the steps of

decoding a scan line of data to obtain a codeword value for a row indicator codeword,

determining a value for one of the number of rows, the number of codewords in each row, and the number of error correction codewords from the codeword value for the row indicator codeword,

adjusting a confidence weight for a corresponding one of the number of rows, the number of codewords in each row, and the number of error correction codewords based on the value determined in the preceding step and a previous value obtained by decoding a row indicator codeword, and

initializing the codeword matrix when the confidence weights for the number of rows, the number of codewords in each row, and the number of error correction codewords all exceed a predetermined threshold.

29. The method of claim 25, wherein each row of the two-dimensional bar code structure contains a start and a stop pattern of bar-coded information, and wherein the step of decoding a scan line of data to obtain a codeword value for a row indicator codeword includes the substep of locating a sequence of data in the scan line corresponding to one of the start and the stop pattern.

30. The method of claim 25, wherein each row of the two-dimensional bar code structure contains a start and a stop pattern of bar-coded information, and wherein the step of decoding a scan line of data into a vector of codeword values includes the substep of locating a sequence of data in the scan line corresponding to one of the start and the stop pattern.

31. The method of claim 25, further comprising the steps of

assigning a confidence weight to each of the codeword values in the vector,

adjusting a confidence weight of each of the corresponding codeword values in the matrix based on the codeword value in the vector and a current value of each of the corresponding codeword values in the matrix.

32. The method of claim 25, wherein the two-dimensional bar code structure contains at least one error correction codeword, and wherein the method further comprises the steps of

locating in the matrix the codeword values for any codewords that have not been successfully decoded, and

correcting any erroneous codeword values in the codeword matrix using the error correction codeword.

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